

Vision Technician

(Job Role)

Qualification Pack: Ref. Id. HSS/Q3001
Sector : Health Care

Textbook for Class XI



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
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OFFICES OF THE PUBLICATION

DIVISION, NCERT

NCERT Campus Sri Aurobindo Marg New Delhi 110 016	Phone : 011-26562708
108, 100 Feet Road Hosdakere Halli Extension Banashankari III Stage Bengaluru 560 085	Phone : 080-26725740
Navjivan Trust Building P.O. Navjivan Ahmedabad 380 014	Phone : 079-27541446
CWC Campus Opp. Dhankal Bus Stop Panihati Kolkata 700 114	Phone : 033-25530454
CWC Complex Maligaon Guwahati 781 021	Phone : 0361-2674869

Publication Team

Head, Publication Division	: <i>M. Siraj Anwar</i>
Chief Editor	: <i>Shveta Uppal</i>
Chief Business Manager	: <i>Gautam Ganguly</i>
Chief Production Officer	: <i>Arun Chitkara</i>
Editor	: <i>Bijnan Sutar</i>
Production Officer	: <i>Abdul Naim</i>

Cover and Layout

DTP Cell, Publication Division

FOREWORD

The National Curriculum Framework–2005 (NCF – 2005) recommends bringing work and education into the domain of the curricular, infusing it in all areas of learning while giving it an identity of its own at relevant stages. It explains that work transforms knowledge into experience and generates important personal and social values such as self-reliance, creativity and cooperation. Through work one learns to find one's place in the society. It is an educational activity with an inherent potential for inclusion. Therefore, an experience of involvement in productive work in an educational setting will make one appreciate the worth of social life and what is valued and appreciated in society. Work involves interaction with material or other people (mostly both), thus creating a deeper comprehension and increased practical knowledge of natural substances and social relationships.

Through work and education, school knowledge can be easily linked to learners' life outside the school. This also makes a departure from the legacy of bookish learning and bridges the gap between the school, home, community and the workplace. The NCF – 2005 also emphasises on Vocational Education and Training (VET) for all those children who wish to acquire additional skills and/or seek livelihood through vocational education after either discontinuing or completing their school education. VET is expected to provide a 'preferred and dignified' choice rather than a terminal or 'last-resort' option.

As a follow-up of this, NCERT has attempted to infuse work across the subject areas and also contributed in the development of the National Skill Qualification Framework (NSQF) for the country, which was notified on 27 December 2013. It is a quality assurance framework that organises all qualifications according to levels of knowledge, skills and attitude. These levels, graded from one to ten, are defined in terms of learning outcomes, which the learner must possess regardless of whether they are obtained through formal, non-formal or informal learning. The NSQF sets common principles and guidelines for a nationally recognised qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, Colleges and Universities.

It is under this backdrop that Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal, a constituent of NCERT has developed learning outcomes based modular curricula for the vocational subjects from Classes IX to XII. This has been developed under the Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education of the Ministry of Human Resource Development.

This textbook has been developed as per the learning outcomes based curriculum, keeping in view the National Occupational Standards (NOS) for the job role and to promote experiential learning related to the vocation. This will enable the students to acquire necessary skills, knowledge and attitude.

I acknowledge the contribution of the development team, reviewers and all the institutions and organisations, which have supported in the development of this textbook.

NCERT would welcome suggestions from students, teachers and parents, which would help us to further improve the quality of the material in subsequent editions.

New Delhi
June 2018

HRUSHIKESH SENAPATY
Director
National Council of Educational
Research and Training

ABOUT THE TEXTBOOK

Blindness and visual impairment continue to be a major public health problem in India. Availability and easy access to primary eye care services is essential for elimination of avoidable blindness. For this reason, an integrated health care system with primary eye care are being promoted by the Government of India, and vision centers at the level of community health centers and primary health centers are being developed on priority. Eye Health Care has become one of India's largest sectors both in terms of revenue and employment. The rapid growth in the industry has led to the demand for trained personnel for various job roles in this area.

A vision technician assists the Ophthalmologist in conducting eye tests, measuring eye function and outlining the diagnosis to treat eye disorders and disease. The vision technician is also responsible for administrative duties—scheduling appointments and maintaining medical records, clinical duties—taking and recording vital signs and medical histories, preparing patients for examination, and dispensing ophthalmic prescription besides demonstrating wearing and removal of contact lens to patients, informing about practicing contact lens hygiene and scheduling contact lens wearing as per prescription of ophthalmologist.

This textbook has been developed with the contribution of the expertise from the subject and industry experts and academicians for making it a useful and inspiring teaching-learning resource material for the vocational students. Adequate care has been taken to align the content of the textbook with the National Occupational Standards (NOSSs) for the job role so that the students acquire necessary knowledge and skills as per the performance criteria mentioned in the respective NOSSs of the Qualification Pack (QP). The textbook has been reviewed by experts so as to make sure that the content is

not only aligned with the NOSs, but is also of high quality. The NOSs for the job role of 'Vision Technician' covered through this textbook are as follows:

HSS / N 3001 : Obtain the case history

HSS / N 3002 : Measure visual acuity

HSS / N 3003 : Assess refractive status

HSS / N 3004 : Dispense spectacles and optical prescription accurately

In Unit 1 of this textbook, the student will learn about the anatomy of the eye, field of vision and the dynamic range of the eye. Units 2 and 3 will focus on comprehensive eye care. It will cover major eye problems and their treatment to avoid blindness and also about clinical duties, common eye problems and injuries affecting different structures of the eye. Units 4 and 5 will discuss the five complex functions of the human eye—visual acuity, field of vision, contrast sensitivity, colour perception and image formation; and the kind of observations suggested by different types of eye care professionals. Unit 6 will deal with the techniques and procedures of retinoscopy, the different kinds of diagnoses for treating refractive errors, and much more. Unit 7 will give an insight into the techniques of transposition of an optical prescription, eyeglass and contact lens as well.

A. NAYAK

Professor

Department of Health and Paramedical Sciences
PSSCIVE, Bhopal

TEXTBOOK DEVELOPMENT TEAM

MEMBER

Vijay Anand Joshi, *Surgical Ophthalmologist and Joint Director (Retd.)*, Directorate of Health Services, Government of Madhya Pradesh and *Consultant*, PSS Central Institute of Vocational Education, Bhopal

MEMBER-COORDINATOR

A. Nayak, *Professor and Head*, Department of Health and Paramedical Sciences, PSS Central Institute of Vocational Education, Shymala Hills, Bhopal

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not to be republished

Gandhiji's Talisman

I will give you a talisman. Whenever you are in doubt or when the self becomes too much with you, apply the following test:

Recall the face of the poorest and the weakest man whom you may have seen and ask yourself if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny? In other words, will it lead to Swaraj for the hungry and spiritually starving millions?

Then you will find your doubts and your self melting away.

M.K. Gandhi

CONTENTS

<i>Foreword</i>	<i>iii</i>
<i>About the Textbook</i>	<i>v</i>
Unit 1: Structure of Human Eye	1
Session 1: Anatomy of Human Eye	2
Session 2: Field of Vision and Dynamic Range of Human Eye	4
Session 3: Movements of Human Eye	6
Unit 2: Obtaining Case History of a Patient	8
Session 1: Recording Medical History of a Patient	9
Session 2: Documenting a Patient's Medical History	14
Session 3: Integrating Medical History and Physical Examination for Treatment Plans	16
Session 4: Assessing Functionality of a Patient's Eyes	20
Unit 3: Common Eye Problems	23
Session 1: Common Eye Problems and Infections	24
Session 2: Symptoms of Common Eye Problems	28
Session 3: Eye Injuries	34
Unit 4: Measuring Visual Acuity	37
Session 1: Meaning of Visual Acuity	38
Session 2: Process of Measuring Visual Acuity	39
Session 3: Normal Vision and Keeping Record of Visual Acuity	41

Unit 5: Basic Visual Assessment	44
Session 1: Eye Care Professionals	44
Session 2: Basic Examination for Eye Diseases	46
Session 3: Eye Examination	48
Session 4: Visual Assessment of the Eye	49
Unit 6: Assessing Refractive Status	55
Session 1: Meaning of Refractive Status and Refraction	56
Session 2: Process of Retinoscopy	59
Session 3: Operation of Auto-refractometer	61
Unit 7: Spectacles, Optical Prescription and Contact Lenses	64
Session 1: Reasons for Vision Disorders	
Session 2: Optical Prescription Notation	65
Session 3: Principle of Foci Meter and Types	69
	72
<i>Answer Key</i>	76
<i>Glossary</i>	78
<i>List of Credits</i>	80